

EXHIBIT B

**UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS**

SINGULAR COMPUTING LLC,

Plaintiff,

v.

GOOGLE LLC,

Defendant.

Civil Action No. 1:19-cv-12551-FDS

PLAINTIFF’S FIRST SET OF REQUESTS FOR PRODUCTION

Under Rules 26 and 34 of the Federal Rules of Civil Procedure, Plaintiff, Singular Computing LLC, requests that Defendant, Google LLC, produce the Documents designated below within thirty days of service of these requests.

DEFINITIONS

Notwithstanding any definition below, each word, term, or phrase used in these Requests is intended to have the broadest meaning permitted under the Federal Rules of Civil Procedure. As used in these Requests, the below terms shall have the following meanings:

1. All Definitions and rules of construction incorporate the obligations set forth in L.R. 26.
2. “Accused Products” means all accused products, computer systems, devices, and other hardware or software identified in Plaintiff’s Amended Complaint (Dkt. No. 37) and in Plaintiff’s Infringement Contentions, including without limitation at least:
 - a. Google Cloud Tensor Processing Unit Version 2 (“TPU v.2”), including software that runs workloads on TPU v.2, including TensorFlow;
 - b. Google Cloud Tensor Processing Unit Version 3 (“TPU v.3”), including software that runs workloads on TPU v.3, including TensorFlow;

c. Larger compute systems that incorporate (a) or (b), such as TPU Pods.

3. “Accused Services” means all Google services delivered in whole or in part by use of any Accused Product, including Translate, Photos, Search, Assistant, Gmail and Cloud (including Cloud AI and Cloud TPU).

4. “Asserted Patents” or “Patents-in-Suit” refers collectively to US Patent Nos. 8,407,273 (“273 Patent”); 9,218,156 (“156 Patent”); and 10,416,961 (“961 Patent”), as well as any other patent(s) that Plaintiff asserts in this action.

5. “Communication” means the transmittal or receipt of information (in the form of facts, ideas, inquiries, or otherwise) regardless of the medium used to transmit or receive the information.

6. “Document” is synonymous in meaning and equal in scope to the usage of this term in Fed. R. Civ. P. 34(a). Any draft or non-identical copy is a separate document within the meaning of this term. Documents include communications.

7. “Plaintiff” or “Singular” means Singular Computing LLC, its employees, agents, attorneys, representatives, or any other persons who have acted or purported to act for their behalf.

8. “Google,” “you” “Defendant” or “your” means Google, LLC, its employees, agents, attorneys, representatives, or any other persons who have acted or purported to act for its behalf. This includes Google LLC, its parents, subsidiaries, divisions, branches, predecessors, or successors-in-interest, and its agents, employees, officers, directors, and attorneys.

9. “Person” means any natural person or any business, legal, or governmental entity or association.

10. Any reference to a corporation, partnership, or other business entity herein, includes its divisions, offices, departments, and other corporate subdivisions, its domestic and foreign

subsidiaries and affiliates, its predecessors in interest, its present or former officials, executives, officers, partners, directors, employees, agents, and all other persons acting or purporting to act on behalf of the entity, its subsidiaries, officers or predecessors, including all past or present employees exercising discretion, making policy, and making decisions or participating in any of the foregoing functions.

INSTRUCTIONS

1. For each request, you shall produce all documents in your possession, custody or control that are responsive to the request.¹

2. You shall state any objection to any request in writing and produce all documents requested that are not subject to that objection.

3. These requests are continuing in nature pursuant. If you obtain any additional documents responsive to these document requests, you shall timely produce such documents to Plaintiff, as required by Fed. R. Civ. P. 26(e).

4. When a document contains both privileged and non-privileged material, you shall produce all non-privileged material to the fullest extent possible without disclosing the privileged material. If you assert any privilege or other protection for material contained in a document, you shall clearly indicate the allegedly privileged portion(s).

5. You shall identify as to each document the reason for the redaction or alteration. Any redaction must be clearly visible on the redacted document.

¹ “Possession” includes actual possession by you, actual possession by you with another, or constructive possession by you in that you are legally entitled or otherwise able to obtain actual possession from another person.

6. If you believe that any request calls for the disclosure of privileged information, You must comply with the requirements of Federal Rule of Civil Procedure 26(b)(5) as to each document for which a claim of privilege is made.

REQUESTS

1. All documents and things relating to conception, design, development, testing, structure, function, operation, manufacture or use of the Accused Products.
2. All documents, including architecture design documents, training manuals, training videos, debugging records, sketch books, diagrams, flowcharts, source code documentation, change logs, specifications, repair records, maintenance records, user guides, system description, CAD files, operational manuals, architectural overviews, system descriptions (for system programmers including compiler developers), chip floor plans, WIKI documentation, correspondence with contractors, programmer logs, timesheets, and other work records, which refer to, explain, describe, define, or otherwise evidence the steps or acts taken by You or persons acting on the behalf of or in connection with You to design, create, build, develop, implement, operate, repair, debug, maintain and/or use the Accused Products, including documents relating to the surface area, transistor counts, and multiplier counts of the MXU, VPU and all other components of the Accused Products.
3. All source code files, including all register-transfer language (RTL), hardware description language (HDL), Verilog, and VHDL files, relating to the Accused Products.
4. All documents that describe the capabilities of the Accused Products.
5. All documents that instruct any user, including a Google engineer/scientist/technician, Google customer, or potential Google customer how to use the Accused Products.
6. All documents sufficient to identify the dates (including the first and last dates) of the use, manufacture, sale, offer for sale, testing, and importation of the Accused Products
7. All documents and things relating to any software utilized in connection with the Accused Products, including Google software and any third party software used to deliver the Accused Services.
8. All documents and things relating to any of the Asserted Patents.
9. All documents and things relating to when you first became aware of the '273 Patent.
10. All documents and things relating to when you first became aware of the '156 Patent.
11. All documents and things relating to when you first became aware of the '961 Patent.

12. All documents and things relating to Singular, its products, services, research, technology, and intellectual property.
13. All documents and things relating to any investigation, analysis, opinion or advice (whether written or oral) concerning the '273 Patent, including, without limitation, the validity, inventorship, ownership, infringement, enforceability, or scope of the '273 Patent, or whether any specific product(s) does or does not infringe one or more claims of the '273 Patent.
14. All documents and things relating to any investigation, analysis, opinion or advice (whether written or oral) concerning the '156 Patent, including, without limitation, the validity, inventorship, ownership, infringement, enforceability, or scope of the '156 Patent, or whether any specific product(s) does or does not infringe one or more claims of the '156 Patent.
15. All documents and things relating to any investigation, analysis, opinion or advice (whether written or oral) concerning the '961 Patent, including, without limitation, the validity, inventorship, ownership, infringement, enforceability, or scope of the '961 Patent, or whether any specific product(s) does or does not infringe one or more claims of the '961 Patent.
16. All documents and things relating to your proposed construction or interpretation of any term(s) used by any claim of the Asserted Patents.
17. All documents and things relating to any efforts by you to design around any claim of the Asserted Patents.
18. All prior art to the Asserted Patents of which you are aware.
19. All documents and things that describe or otherwise indicate the level of education or experience of one of ordinary skill in the art for the Asserted Patents as of the respective priority dates for each of the Asserted Patents.
20. All documents and things referring or relating to the commercial success; current popularity; or past, current, or future demand for the Accused Products, including without limitation any internal or third party communications, charts, data, analyses, studies, examinations, or reports relating to any of the following: participants in the market, market shares, marketing, marketing materials, and pricing of the Accused Products.
21. All documents and things relating to your decision to deliver services (including the Accused Services) based on the use of the Accused Products, or relating to the use of the Accused Products in connection with any of your products or services (including any of the Accused Services).
22. All documents and things relating to your decision to use the Accused Products to deliver in whole or in part any Google product (including without limitation the Accused Services), or any Google AI or machine learning process used to provide any Google product including without limitation the Accused Services.

23. All documents and things relating to the utility and advantages of the Accused Products over any competing technology.
24. If you contend that there were or are non-infringing alternatives or acceptable substitutes to the inventions described in the specification or any claim of the Patents-in-Suit, all documents that support that contention.
25. If you contend that you do not infringe any claim of the '273 Patent, all documents that support that contention.
26. If you contend that you do not infringe any claim of the '156 Patent, all documents that support that contention.
27. If you contend that you do not infringe any claim of the '961 Patent, all documents that support that contention.
28. All documents and things identified in your response to any of Plaintiff's interrogatories.
29. All documents and things that you consulted or relied upon in preparing your responses to any of Singular's interrogatories to you.
30. All documents and things concerning the subject matter of any of Singular's interrogatories to you.
31. All documents, including organizational charts, sufficient to identify the members of the product group, or business segment(s) responsible for the Accused Products, and specifically including the design of TPU v.2 and TPU v.3.
32. All documents and things relating to your document retention policy, including the storage, retention, archiving, and destruction of documents, including electronic documents.
33. All documents and things relating to your intellectual property policies and practices.
34. Copies of any patents and patent applications filed by you that would cover any aspect of the Accused Products, including without limitation at least US Patent No. 10,621,269 and all continuations, continuations-in-part, or divisions thereof, and any reissues or extensions thereof.
35. All documents created by or on behalf of you, or received by you, before the filing of the complaint in this action that reference one or more of the Asserted Patents.
36. All documents and things produced by you in any other patent litigation involving any of the Accused Products.
37. All transcripts, affidavits, declarations, audio recordings, and exhibits relating to any sworn testimony, including but not limited to deposition and trial testimony, given by anyone testifying on your behalf in any proceeding relating to the Accused Products.

38. All documents relating to your policies and practices concerning licensing intellectual property to and from others.
39. All documents relating to and including licenses, patent licenses, settlement agreements, covenants not to sue, or other agreements relating to the Accused Products.
40. All documents relating to royalties (including patent royalties) or license fees that you have paid or are paying relating to the Accused Products.
41. All documents relating to royalties (including patent royalties) or license fees that you have collected or received, or are collecting or receiving, relating to the Accused Products.
42. All documents relating to the marketing of the Accused Products or of any products that make use of the Accused Products, including the Accused Services.
43. All documents relating to revenues and/or pre-tax income attendant to the Accused Products or attendant to any products making use of the Accused Products, including the Accused Services.
44. All documents relating to operating costs and/or expenses for the Accused Products or any products making use of the Accused Products, including the Accused Services.
45. All documents sufficient to show research and development costs and expenses relating to the Accused Products.
46. All documents relating to your research or development of the Accused Products.
47. All documents relating to operating profits for the Accused Products, or any products making use of the Accused Products, including the Accused Services.
48. All documents relating to projections for sales or use of the Accused Products, or any products making use of the Accused Products including the Accused Services.
49. All development profit and loss statements for the Accused Products, or any products making use of the Accused Products, including the Accused Services.
50. Your publicly-disclosed financial statements.
51. All documents concerning, discussing, evaluating and/or analyzing the monetary and/or nonmonetary value that your customers and/or end users of the Accused Products and Accused Services attribute to the features of the Accused Products, including the existence and substance of any related studies, surveys, presentations, reports, or other similar documentation.
52. All documents concerning, discussing, evaluating and/or analyzing the monetary and/or nonmonetary value that you accord the features of the Accused Products and Accused Services,

including the pricing of such features and the existence and substance of any related studies, surveys, presentations, reports, or other similar documentation.

53. All documents concerning comparisons of the Accused Products and Accused Services to comparable products and services of any other person or entity.

54. All reports, reviews and/or studies of each and every product in competition with the Accused Products and Accused Services.

55. All reports, reviews and/or studies of competitor systems and services employing any of the Accused Products and Accused Services.

56. All presentations, whether written, verbal, recorded, televised and/or broadcast (via the Internet or otherwise), concerning the Accused Products and Accused Services.

57. All documents concerning your business and/or financial relationship with third parties concerning the design, development, implementation, use, sale, distribution, or promotion of the Accused Products, including any components and/or features thereof.

58. All license agreements and/or contracts concerning the design, development, implementation, use, sale, distribution, or promotion of the Accused Products, including any components and/or features thereof.

59. All internal analyses or market studies prepared by (or for) you concerning the importance or benefits of the Accused Products and Accused Services, including without limitation any features or components thereof.

60. All documents produced by any third-party pursuant to subpoena in this lawsuit.

61. All documents concerning or consisting of profit and loss (P&L) statements of any product group or business segment(s) responsible for the Accused Products or Accused Services.

62. All documents concerning or consisting of Product Requirement Documents (PRD) or similar development planning documents concerning the Accused Products.

63. All documents concerning or consisting of third-party industry or market reports concerning the Accused Products or Accused Services.

64. All documents concerning or consisting of third-party industry/market reports concerning the market for the Accused Products or Accused Services.

65. All documents concerning or consisting of competitive intelligence/analysis reports (internal and/or third-party) concerning the Accused Products or Accused Services.

66. All price lists, profit or loss statements or projections, and market studies relating to the sale of, or sale of services in connection with, the Accused Products or Accused Services.

67. All documents and things identified in your initial disclosures pursuant to Rule 26(a)(1) of the Federal Rules of Civil Procedure.
68. All documents and things you expect to use, introduce into evidence, or otherwise rely upon at any hearing, trial, submission to the Court, or deposition in this matter.
69. All documents concerning or consisting of any capital asset requests and/or analyses associated with developing Google's data centers without the Accused Products.
70. All documents concerning or consisting of any capital asset requests and analyses associate with developing Googles data centers with the Accused Products.
71. All operating budgets and plans for Google data centers operating without the Accused Products.
72. All operating budgets and plans for Google data centers operating with the Accused Products.
73. All profit and loss statements or other financial analyses prepared by Google related to the actual operation of its data centers with and without the Accused Products.
74. All business planning documents, long-term capital expenditure plans, or other studies from prior to the use of the Accused Products.
75. All business planning documents, long-term capital expenditure plans or other studies from prior to the use of the Accused Products.
76. All studies performed either internally by Google or by third parties discussing system architecture for Google data centers with or without the Accused Products.
77. All studies internally by Google or by third parties discussing the benefits of using the Accused Products as opposed to other products, computer systems, devices, and other hardware/software having architectures that differ from those used by the Accused Products.
78. All documents supporting the decision to make investments in designing and making the Google Tensor Processing Unit v.1 ("TPU v.1") in-house, including business analyses, capital asset requests, research and development expenditure requests, research and development reports and presentations related to the development of the TPU v.1, presentations to management and/or Google's board to support the decision to implement the TPU v.1.
79. All documents supporting the decision to make investments in designing and making the Accused Products in-house, including business analyses, capital asset requests, research and development expenditure requests, research and development reports and presentations related to the development of the Accused Products and presentations to management and/or Google's board to support the decision to implement the Accused Products.

80. All documents relating to the fabrication of the Accused Products, including costs of fabrication and testing of the Accused Products.
81. All budgets and forecasts related to the development and operation of all Google Cloud businesses, including Cloud Platform, Cloud AI and Cloud TPU.
82. All documents sufficient to identify your actual revenues, costs and profits from the operation of all Google Cloud businesses, including Cloud Platform, Cloud AI and Cloud TPU, or any other Google service or business that makes use of the Accused Products, including, but not limited to, any profit and loss statements and other documents and presentations evidencing your actual revenues, costs and profits from the operation of the Google Cloud business or any other Google service or business making use of the Accused Products.
83. All documents sufficient to identify your justification for your investment in hardware, personnel and operations in the Google Cloud businesses, including Cloud Platform, Cloud AI and Cloud TPU, or any other Google service or business making use of the Accused Products, including, but not limited to, any capital asset request(s) or similar document(s).
84. All documents relating to or comprising any studies, analyses or tests of the benefits of the TPU v.1, including without limitation technical functionality or cost reductions.
85. All documents relating to or comprising any studies, analyses and tests of the benefits of the Accused Products in comparison to TPU v.1, including without limitation technical functionality or cost reductions.
86. All documents relating to or comprising any studies, analyses, comparisons or tests of the Accused Products in comparison to TPU v.1, including, but not limited to, technical functionality, and/or cost reductions.
87. All documents that quantify, evaluate or estimate the value to you of the benefits of use of the Accused Products, including, but not limited to, improved search results, advertising placement, increases in volume of search and advertising, increased revenues, profits, advertising rates, and/or click-through rates.
88. All documents relating to the decision to implement the Accused Products including, but not limited to, any details of internal tests performed by you measuring the benefits of implementing the Accused Products.
89. All documents relating to any incremental revenues and/or profits earned by you from use of the Accused Products when compared to other architectures.
90. All documents sufficient to identify which of Google's products or services (including the Accused Services) use the Accused Products, and when each such Google product or service first used the Accused Products.

91. All documents relating to the decision to use the Accused Products in providing Google's products or services (including the Accused Services).
92. All documents concerning the decision to implement the TPU v.1 in Google's products or services (including the Accused Services).
93. All documents concerning the acquisition of DeepMind Technologies, including but not limited to, purchase price allocations, presentations related to the purchase rationale, board approvals and studies and analyses of the activities of DeepMind Technologies prepared by or for Google in connection with the acquisition of DeepMind Technologies.
94. All documents sufficient to show Google's revenues, costs and profits from the operation of DeepMind Technologies.
95. All documents concerning the licensing or acquisition of any technology associated with the operation of Google data centers or other hardware for artificial intelligence or machine learning operations.
96. All documents and things relating to your alleged conception, design, development and testing of the "bfloat16" number format and your use of the "bfloat16" number format in the Accused Products.
97. All documents and things sufficient to show which employee(s) at Google allegedly first conceived of the "bfloat16" number format and any applications thereof.
98. All documents and things sufficient to identify, define, or explain, any internal codenames, nicknames, or other names or titles used to refer to the Accused Products or the bfloat16 number format of the Accused Products, as well as any components thereof or hardware or software related thereto.
99. All documents and things authored by Jeffrey Dean referring or relating to the Accused Products, including internal communications, documents, presentations, reports, investigations, emails, memoranda, or any other document authored by Jeffrey Dean referring or relating to the Accused Products.
100. All documents and things authored by Norman Jouppi referring or relating to the Accused Products, including internal communications, documents, presentations, reports, investigations, emails, memoranda, or any other document authored by Norman Jouppi referring or relating to the Accused Products.
101. All documents and things authored by Jeffrey Dean referring or relating to inventor Joseph Bates or Singular, including internal communications, documents, presentations, reports, investigations, emails, memoranda, or any other document authored by Jeffrey Dean referring or relating to inventor Joseph Bates or Singular.

102. All documents and things authored by Norman Jouppi referring or relating to inventor Joseph Bates or Singular, including internal communications, documents, presentations, reports, investigations, emails, memoranda, or any other document authored by Norman Jouppi referring or relating to inventor Joseph Bates or Singular.

Dated: July 10, 2020

Respectfully submitted,

/s/ Paul J. Hayes

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ATTORNEYS FOR THE PLAINTIFF

CERTIFICATE OF SERVICE

I certify that on July 10, 2020, I served this document on Defendant by causing a copy to be sent via electronic mail to its counsel of record.

/s/ Paul J. Hayes